

	For	receiving Office	use only
PCT	ror	receiving Office	use only
	International Applicat	ion No.	<u>.</u>
REQUEST			
	International Filing D	ate	
The undersigned requests that the present			
international application be processed according to the Patent Cooperation Treaty.	Name of receiving Of	fice and "PCT Into	ernational Application"
according to the rate of cooperation records	Applicant's or agent's (if desired) (12 charac	file reference cters maximum)	003UR016
Box No. I TITLE OF INVENTION SHAPED HIGH FREQUENCY VIBRATORY SOURCE			
SHAFED HIGHT REGOLIGIT VIBRATION TO GORDE			
	on is also inventor	<del></del>	
Name and address: (Family name followed by given name; for a legal enti The address must include postal code and name of country. The country of Box is the applicant's State (that is, country) of residence if no State of reside	the address indicated in this	Telephone No. 713-431-4577	
EXXONMOBIL UPSTREAM RESEARCH COMPANY		Facsimile No.	
P. O. Box 2189 Houston, Texas 77252.2189		713-431-4664 Teleprinter No.	
United States of America		Teleprinter 146.	
		Applicant's regis	stration No. with the Office
State (that is, country) of nationality: US	State (that is, countr	y) of residence:	
This person is applicant for the purposes of:  all designated lall designated States lall designated the United states.	ed States except States of	the United States of America only	the States indicated in the Supplemental Box
Box No. III FURTHER APPLICANT(S) AND/OR (FU	URTHER) INVENTO	R(S)	
Name and address: (Family name followed by given name; for a legal ent The address must include postal code and name of country. The country of Box is the applicant's State (that is, country) of residence if no State of reside KROHN, Christine E. 1827 Nocturne Houston, Texas 77043	the address indicated in this		nt only  nt and inventor  only (If this check-box
United States of America		is marke	ed, do not fill in below.)
		Applicant's registr	ration No. with the Office
State (that is, country) of nationality: US	State (that is, countr	y) of residence:	
This person is applicant for the purposes of:  all designated all designated the United to the Unite	ed States except States of	the United States of America only	the States indicated in the Supplemental Box
Further applicants and/or (further) inventors are indicate	ed on a continuation sh	eet.	
Box No. IV AGENT OR COMMON REPRESENTAT	TIVE; OR ADDRESS	FOR CORRESP	ONDENCE
The person identified below is hereby/has been appointed to a the applicant(s) before the competent International Authoritie	act on behalf of s as:	agent	common representative
Name and address: (Family name followed by given name; for a legal entity  The address must include postal code and name of cou-	, full official designation. ntry.)	Telephone No. 713-431-4577	
KATZ, Gary P. ExxonMobil Upstream Research Company		Facsimile No. 713-431-4664	
P. O. Box 2189 Houston, Texas 77252.2189 United States of America		Teleprinter No.	
		Agent's registrat	ion No. with the Office
Address for correspondence: Mark this check-box wh	ere no agent or commo	<u> </u>	/has been appointed and

### Supplemental Box If the Supplemental Box is not used, this sheet should not be included in the request.

- If, in any of the Boxes, except Boxes Nos VIII(i) to (v) for which a special continuation box is provided, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No...." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:
- (i) if more than two persons are to be indicated as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;
- (ii) if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;
- (iii) if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. III" or "Continuation of Box No. III" or "Continuation of Box No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;
- (iv) if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;
- if, in Box No. VI, there are more than three earlier
  (v) applications whose priority is claimed: in such case, write
  "Continuation of Box No. VI" and indicate for each additional
  earlier application the same type of information as required in
  Box VI.
- If the applicant intends to make an indication of the wish that the international application be treated, in certain designated States, as an application for a patent of addition, certificate of addition, inventor's certificate of addition vertificate of addition. In such a case, write the name or two-letter code of each designated State concerned and the indication "patent of addition," "certificate of addition," "inventor's certificate of addition," the number of the parent application or parent patent or other patent grant and the date of grant of the parent application (Rules 4.11(a)(iii) and 49bis.1(a) or (b)).
- If the applicant intends to make an indication of the wish that the international application be treated, in the United States of America, as a continuation or continuation-in-part of an earlier application: in such a case, write "United States of America" or "US" and the indication "continuation" or "continuation-in-part" and the number and the filing date of the parent application (Rules 4.11(a)(iv) and 49.bis.1(d)).

#### Continuation of Box IV:

SMITH, Charles E. COLLINS, Douglas J. KATZ, Gary P. LAWSON, Gary D. PLUMMER, J. Paul WILSON, Pamela L. WOLFS, Denise Y.

of:

EXXONMOBIL UPSTREAM RESEARCH COMPANY P. O. Box 2189 Houston, Texas 77252-2189 United States of America

Sheet No	3

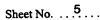
Box No.V DESIGNAT	Box No.V DESIGNATIONS			
The filing of this request international filing date, for and national patents.	constitutes under Rule 4.9 or the grant of every kind of	(a), the designation of protection available and	all Contracting States by where applicable, for	oound by the PCT on the the grant of both regional
However,				
l <b>—</b>	esignated for any kind of na	-		
l <u> </u>	is not designated for any ki	=		
	n <b>is not designated</b> for any k			
i eneci, unaerine namonai i	ay be used to exclude (îrrev law, of an earlier national a h national law provisions in	DD/ICATION TRANS WIRIAR NE	riority is alsowed that	avoid the ceasing of the he Notes to Box No. V as
Box No. VI PRIORITY	CLAIM			
The priority of the following	ng earlier application(s) is he	етеby claimed:		
Filing date	Number	Where earlier application is:		
of earler application (day/month/year)	of earlier application	national application: country or Member	regional application:* regional Office	international application: receiving Office
item (1) (01/04/2003) 1 April 2003	60/459,550	US		
item (2)				
item (3)				
Further priority claims	are indicated in the Suppler	nental Box.		
The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office) identified above as:				
all items item (1) item (2) other, see Supplemental Box				
* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)):				
	•••••		• • • • • • • • • • • • • • • • • • • •	
Box No. VII INTERNATIONAL SEARCHING AUTHORITY				
Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):				
ISA/us				
Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):				
Date (day/month/year)	Numb	er Cour	atry (or regional Office)	
Box No. VIII DECLARA	ATIONS			
The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):  Number of declarations				
Box No. VIII (i)	Declaration as to the ident	ity of the inventor		
Box No. VIII (ii)	Declaration as to the application filing date, to apply for and	cant's entitlement, as at the design of the	he international	: 1
Box No. VIII (iii)	Box No. VIII (iii) Declaration as to the applicant's entitlement, as at the international filing date to claim the priority of the earlier application			. 1
Box No. VIII (iv)	Declaration of inventorship of the United States of Am	o (only for the purposes o	of the designation	: 1
Box No. VIII (v)	Declaration as to non-preju	•	eptions to lack of novel	· ·

Sheet No. . . 4

Sheet No				
Box No. VIII (ii) DECLARATION: ENTITLEMENT TO APPLY FOR AND BE GRANTED A PATENT				
The declaration must conform to the standardized wording provided for in Section 212; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (ii). If this Box is not used, this sheet should not be included in the request.				
Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate:  EXXONMOBIL UPSTREAM RESEARCH COMPANY is entitled to apply for and be granted a patent by virtue of the following:				
an Assignment from KROHN, Christine to EXXONMOBIL UPSTREAM RESEARCH COMPANY dated 29 April, 2003 (29/04/03).				
This declaration is made for the purpose of all designations, except the designations of the United States of America.				

Form PCT/RO/101 (declaration sheet (ii)) (January 2004) LegalStar 2004, Form PCTREQ

This declaration is continued on the following sheet, "Continuation of Box No. VIII (ii)".



#### Box No. VIII (iii) DECLARATION: ENTITLEMENT TO CLAIM PRIORITY

The declaration must conform to the standardized wording provided for in Section 213; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii)):

in relation to this International Application

KROHN, Christine is(are) entitled to claim priority of earlier application

No. 60/459,550 by virtue of the following:

the applicant(s) is(are) the inventor(s) of the subject matter for which protection was sought by way of the earlier application.

This declaration is made for the purpose of the following designations for national and/or regional patents: US

☐ This declaration is continued on the following sheet, "Continuation of Box No. VIII (iii)".





Box No. VIII (iv) DECLARATION: INVENTORSHIP (only for the purposes of the designation of the United States of America)
The declaration must conform to the following standardized wording provided for in Section 214; see Notes to Boxes
Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iv). If this Box is not used, this sheet should

# Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America:

tot the barbassas a	
I hereby declare that I believe I am the original, first and sole (if onlone inventor is listed below) inventor of the subject matter which is c	
This declaration is directed to the international application of which i	t forms a part (if filing declaration with application).
This declaration is directed to international application	(ir turnishing declaration paroa
I hereby declare that my residence, mailing address, and citizenship a	are as stated next to my name.
I hereby state that I have reviewed and understand the contents of the claims of said application. I have identified in the request of said claim to foreign priority, and I have identified below, under the hountry or Member of the World Trade Organization, day, month inventor's certificate filed in a country other than the United Stapplication designating at least one country other than the United Stapplication designating at least one country other than the United Stapplication designating at least one country other than the United Stapplication designating at least one country other than the United Stapplication designating at least one country of the stapplication designating at least	e above-identified international application, including displication, in compliance with PCT Rule 4.10, any leading "Prior Applications," by application number, and year of filing, any application for a patent or tates of America, including any PCT international attes of America, having a filing date before that of the
Prior Applications:	
I hereby acknowledge the duty to disclose information that is known C.F.R. §1.56, including for continuation-in-part applications, materials of the prior application and the PCT international filing of	ate of the continuation-in-part application.
I hereby declare that all statements made herein of my own k information and belief are believed to be true; and further that these false statements and the like so made are punishable by fine or impute United States Code and that such willful false statements may issued thereon.	eopardize the validity of the application or any patent
Name: KROHN, Christine E	
(city and either US state, if applicable, of country)	
Mailing Address: 1827 Noctume	
Houston, Texas 77043	
Inventor's Charles 1 Corrected (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	Date: 2/12/04  (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)
Name:	
Name:  Residence: (city and either US state, if applicable, or country)	
Mailing Address:	
Citizenship:	
Inventor's Signature:	Date: (of signature which is not contained in the request, or of
(if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	(of signature which is not contained in the request, of of the declaration that is corrected or added under Rule 26ter after the filing of the international application)
Canting short "Canting	usation of Box No. VIII (iv)".
This declaration is continued on the following sheet, "Continued on the following shee	qualities of Box 140. Viz (17)





## Sheet No. ... 7...

N. D. CHECK LIST- LANGUAGE	k No. IX CHECK LIST; LANGUAGE OF FILING			
		Number of items		
his international application contains:				
in paper form, the following number of sheets:	right column the number of each trans	:1		
request (including	<ol> <li>fee calculation sheet</li> <li>original separate power of attorney</li> </ol>	:1		
declaration sheets)		:		
description (excluding	Canada any of attorney reference number, if			
sequence listing and/or tables related thereto) : 28	4. copy of general power of automos, reserved	!		
claims : 7	5. Statement explaining lack of signature	:		
abstract : 1				
drawings : 12	item(s):			
Sub-total number of sheets 55	7. Translation of international application into (language):	:		
sequence listing : tables related thereto :	8. separate indications concerning deposited microorganic other biological material	sm or		
(for both, actual number of sheets if filed in paper	9 sequence listing in computer readable form			
form, whether or not also filed in computer	(indicate type and number of currers)	h under		
readable form; see (c)	Rule 13ter only (and not 2)	column)		
Total number of sheets : 55	(ii) (only where check-box (b)(i) or (c)(i) is marked in tell additional copies including, where applicable, the cop purposes of international search under Rule 13ter	y for the		
(b) only in computer readable form (Section 801(a)(i))	(iii) together with relevant statement as to the identity of to or copies with the sequence listing mentioned in left or	ne copy column :		
<ul><li>(i) ☐ sequence listing</li><li>(ii) ☐ tables related thereto</li></ul>	or copies with the sequence fixing methods to sequence i			
(c) also in computer readable form	(indicate type and number of durities)	h under l		
(Section 801(a)(ii)) (i) sequence listing	Section aoz(o-quater)	: 1		
(ii) tables related thereto	application)  application   ap	ed in left		
- dbox of corriers	application)  (ii) (only where check-box (b)(ii) or (c)(ii) is mark column) additional copies including, where application copy for the purposes of international search und 802(b-quater)	cable, the er Section :		
(diskette, CD-ROM, CD-R or other) on which are contained the	(iii) together with relevant statement as to the identity of	the copy		
sequence listing:	(iii) together with relevant statement as to the together with the tables mentioned in left column or copies with the tables mentioned in left column	•		
tables related thereto:	or copies with the tables mentioned in left column.  11.  other (specify). Return Receipt Postcard			
items 9(ii) and/or 10(ii), in right column	)			
	C CN - a of the			
Figure of the drawings which should accompany the abstract:	Language of filing of the international application: English			
should accompany the abstract.	TOTAL PROPERTY OF THE PARTY OF	om reading the request).		
Next to each signature, indicate the name of the person:	T, AGENT OR COMMON REPRESENTATIVE  signing and the capacity in which the person signs (if such capacity is not obvious from	in teaching and a		
	Date: 2/12/04			
x	Date:			
Gary P. Katz, Agent Expres	s Mail Label No. ET558176693US	·		
	For receiving Office use only			
1. Date of actual receipt of the purported	Pot teering outer and and	2. Drawings:		
1. Date of actual receipt of the purported international application:		received:		
a date of actual receipt due to	later but			
Corrected date of actual receipt date of	npleting the	not received:		
		not received:		
<ol> <li>Date of timely receipt of the required corrections under PCT Article 11(2):</li> </ol>				
5. International Searching Authority	6. Transmittal of search copy delayed until search fee is paid			
(if two or more are competent). ISA				
	For International Bureau use only			
Date of receipt of the record copy				
by the International Bureau:	_			
-,		ten to the request for		